WHAT IS CLAIMED IS:

1. A method of determining whether a sampled cardiac signal is noisy, the method including:

determining whether an evaluation sample of the cardiac signal is a turning point with respect to previous and subsequent samples;

counting a number of the turning points over a predetermined plurality of cardiac samples; and

deeming a window that includes the predetermined plurality of cardiac samples to be noisy if the number of turning points exceeds a threshold value.

2. The method of claim **1**, in which the determining whether the evaluation sample of the cardiac signal is a turning point includes:

determining first and second directions of the cardiac signal preceding and following the evaluation sample, respectively; and

deeming the evaluation sample to be a turning point if the first direction is different from the second direction.

3. The method of claim **2**, further including deeming the evaluation sample to be other than a turning point if at least one of the first and second directions manifests a slope of a magnitude that is less than a threshold value.

4. The method of claim **1**, in which the determining whether the evaluation sample is a turning point is carried out at a frequency that is different from a sampling frequency.

5. The method of claim **1**, further including setting a noise flag if the window is deemed noisy.

6. The method of claim **1**, further including, if the cardiac signal is deemed noisy, at least one of:

adjusting the detecting the cardiac signal; and

adjusting a response to the detecting the cardiac signal.

7. The method of claim **1**, in which the threshold value includes a majority threshold value and a quorum threshold value.

8. The method of claim **1**, in which the previous sample is taken at a first predetermined number of periodic samples away from the evaluation sample and the subsequent sample is taken at a second predetermined number of periodic samples away from the evaluation sample.

9. The method of claim **8**, in which the first and second predetermined number are equal.

10. The method of claim **8**, in which the first and second predetermined number are varied over a range.

11. The method of claim **1**, in which the previous and subsequent samples respectively immediately precede and immediately succeed the evaluation sample.

12. The method of claim **1**, further including:

counting a number of windows deemed noisy; and

setting a noise flag if the number of windows deemed noisy exceeds a window threshold value.

13. A method including:

(a) detecting a cardiac signal from electrodes associated with a heart;

(b) sampling the cardiac signal periodically to obtain a sampled cardiac signal x(n);

(c) determining, for each sample, $TP = \mathrm{sign}\{x(i)-x(i-K)\} * \mathrm{sign}\{x(i+K)-x(i)\}$, in which $x(i)$ is the ith sample of the sampled cardiac signal $x(n)$, and in which K is an integer offset, and in which TP = -1 is used as at least one factor indicating that $x(i)$ is a turning point; and

(d) deeming the cardiac signal to be noisy if a number of turning points occurring during a fixed number of samples preceding $x(i)$ exceeds a threshold value.

14. The method of claim **13**, in which if $|x(i)-x(i-K)|$ is less than a first threshold or $|x(i+K)-x(i)|$ is less than a second threshold, then $x(i)$ is deemed to be not a turning point.

15. The method of claim **13**, in which K=1.

16. The method of claim **13**, further including varying K between different values, and carrying out (c) and (d) at the different values of K.

17. The method of claim **13**, further including setting a noise flag if the window is deemed noisy.

18. The method of claim **13**, further including, if the cardiac signal is deemed noisy, at least one of:

adjusting the detecting the cardiac signal; and

adjusting a response to the detecting the cardiac signal.

19. The method of claim **18**, in which the adjusting the detecting the cardiac signal includes at least one of adjusting a gain, adjusting a sensitivity threshold, adjusting a frequency selectivity, switching an electrode from which the cardiac signal is sensed, and corroborating sensed depolarizations with another cardiac signal detected from a different electrode.

20. The method of claim **13**, in which the threshold value includes a majority threshold value and a quorum threshold value.

21. A system including:

a first electrode associated with a heart;

a cardiac signal detector coupled to the first electrode, and including a detector output providing a sampled cardiac signal; and

a signal processor circuit to determine, over a predetermined plurality of cardiac signal samples, whether an evaluation sample of the cardiac signal is a turning point with respect to previous and subsequent samples, and to deem a portion of the cardiac signal to be noisy if a number of turning points exceeds a threshold value for the predetermined plurality of cardiac signal samples.

22. The system of claim **21**, in which the signal processor operates to determine first and second directions of the cardiac signal preceding and following the evaluation sample, respectively, and to deem the evaluation sample to be a turning point if the first direction is different from the second direction.

23. The system of claim **22**, in which the system further requires that each of the first and second directions manifest a slope of a magnitude that exceeds a corresponding first and second threshold value before deeming the evaluation sample to be a turning point.

24. The system of claim **21**, in which the signal processor operates to repeat at different frequencies the determination of whether the evaluation sample is a turning point.

25. The system of claim **21**, in which the previous sample is taken at a first predetermined number of periodic samples away from the evaluation sample and the subsequent sample is taken at a second predetermined number of periodic samples away from the evaluation sample.

26. The system of claim **25**, in which the first and second predetermined number are equal.

27. The method of claim **25**, in which the signal processor operates to vary the first and second predetermined number.

28. The system of claim **21**, in which the previous and subsequent samples respectively immediately precede and succeed the evaluation sample.

29. The system of claim **21**, in which the electrode includes at least one of an intravascular electrode, an intracardiac electrode, an epicardial electrode, a housing electrode, a header electrode, and a skin surface electrode.

30. The system of claim **21**, further including a user interface, remote from and communicatively coupled to the signal processor to receive an indication of whether the portion of the cardiac signal is deemed noisy.

31. The system of claim **21**, further including a noise flag storage location that is set if the portion of the cardiac signal is deemed noisy.

32. The system of claim **21**, in which the cardiac signal detector includes at least one of:

a gain that is adjusted if the portion of the cardiac signal is deemed noisy;

a sensitivity threshold that is adjusted if the portion of the cardiac signal is deemed noisy; and

a filter including a frequency selectivity that is adjusted if the portion of the cardiac signal is deemed noisy.

33. The system of claim **21**, further including a second electrode associated with the heart, and in which the cardiac signal detector is coupled to the second electrode if the portion of the cardiac signal from the first electrode is noisy.

34. The system of claim **33**, in which the cardiac signal detector is decoupled from the first electrode if the portion cardiac signal from the first electrode is noisy.

35. The system of claim **21**, in which the signal processor circuit includes an N-bit first first-in-first-out (FIFO) storage device.

36. The system of claim **35**, in which the first FIFO includes a corresponding counter to sum the N-bits that have a predetermined binary value.

37. The system of claim **35**, in which the signal processor circuit further includes an M-bit second FIFO storage device.

38. The system of claim **37**, in which the second FIFO includes a corresponding counter to sum the M-bits that have a predetermined binary value.

39. The system of claim **21**, in which the threshold value includes a majority threshold value and a quorum threshold value.

40. The system of claim **21**, in which the signal processor circuit includes:

a difference circuit, coupled to the detector output to receive the sampled cardiac signal, and providing a first difference between an evaluation sample and a preceding sample and a second difference between a succeeding sample and the evaluation sample;

a comparator, receiving at least one of the first and second differences for comparison to at least one threshold value, the comparator providing a comparator output indicative of the comparison; and

a logic circuit, having an input coupled to the comparator output, and providing an output indicative of whether the evaluation sample represents a turning point with respect to the preceding and succeeding samples.

41. The system of claim **40**, in which the comparator is a window comparator.

42. The system of claim **40**, in which the threshold value includes a majority threshold value and a quorum threshold value.